BEFORE THE

PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Milwaukee Water Works, Milwaukee County, Wisconsin, for Authority to Increase Water Rates	)))))	**Docket 3720-WR-107**

Rebuttal Testimony of Michael Gorman

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Michael Gorman. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q ARE YOU THE SAME MICHAEL GORMAN WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A Yes. I filed direct testimony on April 23, 2010 on behalf of MillerCoors, LLC, a brewery located in Milwaukee which is a large user of water on the Milwaukee Water Works utility (MWW).

Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A I will respond to the class cost of service study offered by Staff witness Andrew Behm.

Q PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A A review of Staff witness Behm's class cost of service study resulted in my conclusion that he has over-allocated costs to high load factor industrial customers, and under-allocated costs to MWW's smaller customers for the following reasons:

1. Mr. Behm used maximum day system demand ratios and maximum hour system demand ratios based on factors that over-allocate costs to base and under-allocate costs to max day and max hour demand functions. This results in an over-allocation of costs to high load factor large industrial customers.

2. Mr. Behm made an assumption that all main contributions in aid of construction (CIAC) should be assigned to distribution main functions, and no cost should be assigned to transmission main functions. He stated that he needed to review this assumption based on information that was expected to be provided by MWW later. The information provided by MWW shows that this assumption was inappropriate. Because Mr. Behm allocates transmission mains on max day demand ratios, and distribution mains on max hour demand ratios, this misallocation of CIAC impacts retail sales customers' cost of service. As a result, Mr. Behm is overstating cost of service for high load factor customers, such as MWW industrial customers.

3. Mr. Behm allocated all of MWW's $5 million of purchased power cost for pumping on base volumes. This was unreasonable. Purchased power cost is determined by electrical demands and energy billing units triggered in accordance with the electric utility's pricing structure. Electric demand costs correspond with water demands on the max day or max hour functions. A review of bills from the electric supplier for MWW shows that this electric power cost for pumping should have been allocated on both max hour and base demands. Mr. Behm's failure to allocate cost to max hour resulted in an over-allocation of this cost to base component, and therefore an overstatement of cost to higher load factor industrial customers.

4. Mr. Behm's class cost of service study reflected max hour ratios that are significantly different than max hour class demand factors used in MWW's previous rate proceedings. As addressed in my direct testimony, there is no justification for the significant change in max hour allocators for residential customers in this case relative to previous cases, and this change should not be approved in this case.

5. As laid out in my direct testimony, Mr. Behm's cost of service study also did not distinguish between the cost associated with small mains and large mains in the assignment of main distribution cost between customer classes. Since large retail customers cannot be served by smaller distribution mains, the cost associated with small mains should not be allocated to larger customers. Mr. Behm's cost of service study as a result over-allocates cost to large industrial customers.

6. Finally, while the rate tempering represented by the alternative rate proposal (Exhibit 12.4) is a step in the right direction, it does not go far enough. Because of my concerns with the reliability of Staff's cost of service model, I recommend an equal percentage increase to all rate schedules.

Extra Capacity Allocators

Q HOW DID STAFF WITNESS BEHM DEVELOP SYSTEM MAX DAY AND MAX HOUR RATIOS ON EXHIBIT 12.2, SCHEDULE 4?

A Mr. Behm used a max day and max hour demand ratio of 1.4 and 1.7, respectively, to allocate system costs between max day and max hour extra capacity. Mr. Behm acknowledges that the max day and max hour ratios he used were lower than MWW's actual max day and max hour measured ratios of 1.43 and 1.73, respectively, measured over the period 2004 through 2009. He asserts that his decision to use the lower extra capacity ratios is appropriate based on relatively low extra capacity ratios in calendar year 2009.

Q HOW DO THE MAX DAY AND MAX HOUR EXTRA CAPACITY FACTORS USED BY STAFF WITNESS BEHM COMPARE TO THE EXTRA CAPACITY FACTORS USED BY STAFF IN PAST CASES, AND THE EXTRA CAPACITY FACTORS MEASURED USING THE HISTORICAL DATA PROVIDED TO STAFF?

A This information is shown below in Table 1. The extra capacity factors used by Staff witness Behm in his cost of service study in this case are shown under Column 1. Under Column 2, I show the six-year average extra capacity factors Mr. Behm relies upon in support of his recommendations for this case. Under Column 3, I relied on the same data source used by Mr. Behm to establish extra capacity factors over a 10-year period.

TABLE 1

System Demand Ratios

Description	Staff Proposed This Case (1)	MWW Actual 6-Year Average (2)	MWW Actual 10-Year Average (3)
Max Day Factor	1.40x	1.43x	1.46x
Max Hour Factor	1.70x	1.73x	1.79x

As shown above, the max day and max hour factors used by Mr. Behm (Column 1) are lower than the max day and max hour extra capacity factors measured on average over the last 6-year (Column 2) and 10-year period (Column 3). All this information suggests that Staff's max day and max hour factors in this case understate the extra capacity demand factors on the MWW system.

Q DID STAFF PROVIDE ANY JUSTIFICATION FOR ITS USE OF LOWER MAX DAY AND MAX HOUR EXTRA CAPACITY FACTORS?

A Yes. Staff witness Behm asserts that the max day/max hour ratios have been declining over time, thus supporting his opinion that max day/max hour ratios that are lower in this case compared to MWW's last case, and lower than average over the last 6-year and 10-year periods, are appropriate.

Q DO YOU BELIEVE STAFF'S RATIONALE FOR USING THESE LOWER MAX DAY/MAX HOUR RATIOS IS REASONABLE?

A No. Max day/max hour consumptions can be impacted by the economy and many facets of the weather, including, in particular, rainfall. Because these factors can move significantly over time, and cannot be predicted, it is necessary to capture

normalized conditions in properly measuring the base and extra capacity demands on the MWW system. This is best accomplished by use of average demand ratios over a period of time rather than by looking for trends, without consideration of weather and rainfall, as Staff appears to have done in this case.

A review of rainfall and temperature as reported by the National Climate Data Center is provided on my Exhibit 13.2, Schedule 1 for its rainfall and temperature area near Milwaukee. As shown on this schedule, the temperature for 2008 and 2009 was abnormally cool thus likely reducing peak hour/peak day water demands relative to more normal weather conditions. Rainfall varied significantly over the last 6- and 10-year periods but was above average in 2008 and 2009. Since weather and rainfall are not stable, an average max day/max hour ratio measured over the last 6- or 10-year periods is far superior to Staff's proposal to rely more on 2009 and recent trend data. I believe Staff's decision to not rely on either the 6-year average or 10-year average max day/max hour demand ratios for its cost of service study was inappropriate.

Water sales can be impacted by weather and rainfall for several reasons. For example, temperatures can impact the demands for water for residential, commercial and industrial customers based on water used for environmental systems, lawn irrigation, hydration, and other factors. Rainfall can impact water demand primarily for lawn irrigation, recreational uses, and other factors. The above average rainfall in 2008 and 2009 most likely was a significant contributing factor to the below average max day and max hour demand ratios measured in those years.

Q COULD THE OVERALL DROP IN DEMAND ACCOUNT FOR THE LOWER MAX DAY/MAX HOUR RATIOS USED BY MR. BEHM?

A No. While demand has dropped, that drop, in and of itself, will not directly affect max day and max hour ratios. The declining trend in water consumption for MWW may not necessarily equate to a change in the load profile of the demands on the system. Rather, it can equate simply to a reduction in the number of customers. As such, max day/max hour relationships to average flow may not be impacted by a trend in reduced consumption on the overall system. Therefore, simply assuming that max day/max hour demand ratios would change due to declining sales is without merit. Customers who remain on the system very likely have comparable load characteristics for max day/max hour demands, and average flow demands, as the system had in previous periods. The only accurate way to measure changes in demand ratios and average flow conditions is to complete a normalized max hour/max day demand ratio and average base usage study.

Q DO THE MAX DAY AND MAX HOUR DEMAND RATIOS SIGNIFICANTLY IMPACT THE ALLOCATION OF COSTS BETWEEN BASE AND EXTRA CAPACITY?

A Yes. This is shown in the percent of total costs that are allocated to base, max day and max hour using the demand ratios from Staff's last case, this case, and what would be appropriate using demand ratios from a 6-year and 10-year average as shown below in Table 2. As shown in this table, Staff is proposing to allocate approximately 71.4% of costs to base on a max day extra capacity methodology, and 58.8% of costs to base on a max hour extra capacity factor. This is a substantial change from the prior case when max day extra capacity cost elements Staff allocated 52% to base and 48% to max day. Further, for max hour, Staff had previously allocated only 35% to base and 65% to max hour. The historical data

argues in favor of decreasing cost allocated to base and increasing the costs allocated to extra capacity demands.

TABLE 2

Description	Cost Allocation (Percent of Total Cost) Staff Proposed This Case (1)	Staff Proposed Last Case (2)	MWW Actual 6-Year Average (3)	MWW Actual 10-Year Average (4)
Base/Max Day	71.4/28.6	52.0/48.0	69.6/30.4	68.3/31.7
Base/Max Hour	58.8/41.2	35.0/65.0	57.5/42.5	55.5/45.5

Q WHAT IS THE EFFECT ON MR. BEHM'S COST OF SERVICE STUDY OF UNDERSTATING THE MAX DAY AND MAX HOUR DEMAND RATIOS?

A By understating the max day and max hour demand ratios, Mr. Behm under-allocates costs to these extra capacity functions and over-allocates costs to base usage. By under-allocating costs to extra capacity functions, Mr. Behm has inappropriately over-allocated costs to high load factor customers (i.e., Industrial) of MWW.

Contributions in Aid of Construction (CIAC)

Q PLEASE EXPLAIN THE CONCEPT OF CIAC, AND ITS RELEVANCE TO A WATER RATE CASE.

A CIAC represents plant investment that was paid for by customers and contributed to MWW. Customers normally contribute plant that is needed to interconnect to a water utility, if the interconnection cost exceeds the cost the utility is willing to incur to make the connection. If the plant is contributed, MWW has no cost associated with the

plant investment. As such, CIAC typically has zero cost and does not increase MWW's cost of service.

Q PLEASE EXPLAIN WHAT YOU MEAN BY DISTRIBUTION PLANT AND CONSTRUCTION PLANT.

A Plant under construction is plant that has not yet been placed in-service. As distribution plant is constructed and placed in-service, it is then re-categorized from construction work in progress (CWIP) to plant in-service, and then would be properly considered part of the Company's distribution plant. Prior to it being placed in-service, however, the plant would be considered construction work in progress and not yet included in the distribution plant investment.

Q DID MR. BEHM CHANGE THE STAFF'S ALLOCATION OF UTILITY FINANCED PLANT BETWEEN TRANSMISSION AND DISTRIBUTION MAINS RELATED TO CIAC?

A Yes. In this case, Mr. Behm assumed that all CIAC should be allocated to distribution plant and none of it allocated to transmission plant. However, Mr. Behm indicated in his testimony that he was awaiting additional information from MWW to verify the accuracy of this assumption.

Q DID MWW PROVIDE THE INFORMATION SHOWING THE AMOUNT OF CONTRIBUTED PLANT THAT SHOULD BE ALLOCATED TO TRANSMISSION AND DISTRIBUTION MAINS?

A Yes. MWW provided a spreadsheet that showed the amount of CIAC for mains versus utility-financed mains. PSC Ref. No. 131219.

As shown on Exhibit 13.2, Schedule 2, approximately 29.3% of all CIAC is for pipe larger than 12 inches. This is transmission pipe based on MWW's and the Staff's classifications. Hence, only 70.7% is for distribution mains 12 inches and smaller.

Other Allocation Issues

Q DID STAFF INCLUDE A SEPARATION OF SMALL MAINS AND LARGE MAINS FOR ALLOCATION OF COST TO CUSTOMERS BASED ON THEIR SIZE OF SERVICE?

A No. For the reasons set forth in my direct testimony at pages D13.14 through D13.16, Staff's cost of service study for MWW allocates significant costs associated with small distribution mains to large customers. This allocation is inappropriate, because these small distribution mains represent costs that are not incurred in order to provide service to large customers. Indeed, small distribution mains cannot physically be used to provide the volumetric demands of large customers. Therefore, small main costs should not be allocated to MWW's large customers.

Rather, these small distribution mains represent costs that are incurred by MWW to provide service to smaller commercial and residential customers. As such, distribution costs should be separated between large distribution costs and small distribution costs. Large distribution main costs should be spread across all retail customers, and small distribution main costs should only be allocated to smaller commercial and residential customers. This allocation reflects MWW's actual cost causation of distribution service, and ensures each customer pays a fair share of the distribution cost MWW incurs to provide them service.

Q DID STAFF ALLOCATE A PORTION OF ITS TRANSMISSION MAINS TO MAX HOUR?

A No. For the reasons described in my direct testimony at pages D13.11-D13.12, Staff only allocated transmission main cost based on the base and max day factor. This was not appropriate or reasonable, because transmission plant is designed and its cost reflects a component for max hour demands. Staff's proposal to not allocate a portion of transmission main cost on max hour, results in the allocation of too much transmission main cost to base, and too little to extra capacity. This misallocation in turn over-allocates transmission cost to high load factor customers, like MWW's industrial customers.

O&M Allocations

Q DO YOU HAVE ANY COMMENTS ABOUT MR. BEHM'S ALLOCATION OF OPERATION AND MAINTENANCE EXPENSE ON EXHIBIT 12.2, SCHEDULE 7?

A Yes. Mr. Behm allocated $5 million of power cost in Account 623 on only base volumes. This is inappropriate. MWW's purchases of electric power from Wisconsin Electric Power Company would be tied to that utility's tariff rate structure.

As shown on Exhibit 13.2, Schedule 3, assuming a typical utility pumping load factor of 45%, MWW's power cost bills would be composed of an approximately 31.6% demand charge and 68.4% energy charge. A power demand charge is tied to the highest peak consumption during the month. Hence, power demand corresponds to peak day or peak hour allocation. Energy charges are tied to average usage. Hence, energy charges correspond to base volume water demand.

Since MWW's major reason for electrical power cost is for "pumping," and the pumps operate to supply customers' base and peak day/peak hour demands, power cost should be allocated using base volume and max day demands.

Q WHAT IS THE EFFECT OF ALLOCATING POWER COST ONLY TO BASE VOLUMES?

A Allocating power cost on base volumes alone allocates far more power cost to high load factor customers. In contrast, allocating a portion of power cost to max day/max hour functions assigns part of power cost to the system customer's contribution to the peak demands. Allocating power cost then on only base demand, and not reflecting the components of power cost which is driven by max hour/max day demand conditions, over-allocates cost to high volume, or high load factor water customers such as MWW's industrial customers.

Class Capacity Ratios

Q DO YOU HAVE ANY COMMENTS ABOUT MR. BEHM'S DEVELOPMENT OF EXTRA CAPACITY MAX DAY AND EXTRA CAPACITY MAX HOUR FOR HIS CLASS COST OF SERVICE STUDY ON EXHIBIT 12.2, SCHEDULE 9?

A Yes. Mr. Behm states at page D12.17 of his testimony that these customer class max day and max hour extra capacity factors were not based on actual load characteristics of the system. Rather, they are based on his judgment and his review of max day and max hour assessments of other water utilities. This is simply not reasonable. Mr. Behm is significantly modifying max hour consumption characteristics for residential customers relative to previous cost studies. Again, he bases this on a relatively narrow review of actual consumption for residential

customers. That time period may not reflect normalized weather conditions, rainfall and other factors which can significantly impact residential water use consumption, which is highly sensitive to these factors. As such, a more normal level of max day/max hour allocations for residential classes should continue to be used in setting rates for MWW.

Rate Tempering

Q FINALLY, DO YOU HAVE ANY COMMENT ON THE RATE MITIGATION APPROACH PROPOSED BY STAFF IN ITS ALTERNATIVE RATE DESIGN PROPOSAL?

A I agree with Staff's proposal to ensure that the spread of the claimed revenue deficiency in this proceeding is reasonable to all customers. However, because of the significant concerns I have with Staff's cost of service study I believe its proposed rate mitigation spread is not just and reasonable. Specifically, the Staff's rate mitigation spread still provides industrial customers an above average rate increase. Urban industrial customers receive a 30.7% increase, in comparison to a system-wide increase of 28.6%. Staff at least in part justifies this rate spread based on its cost of service study. For the reasons discussed above, I believe Staff's cost of service study substantially over-allocates cost to high load factor industrial customers. Therefore, Staff's estimated cost of service for an industrial customer of MWW I believe is substantially overstated. Until a class cost of service study can be completed which corrects all the deficiencies in Staff's cost of service study, I recommend that the cost of service study not be relied on to support a rate spread in this proceeding.

Therefore, absent a complete and reasonable cost of service study to identify cost of service in this proceeding, I believe all rate classes should receive no more than the system average increase in this proceeding. I believe this would be a more balanced mitigation of the rate increase in this proceeding because a proper design of rates to recover cost cannot be done without an updated and corrected cost of service study.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes, it does.

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